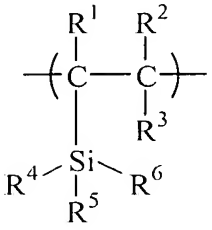
This listing of claims will replace all prior versions, and listings, of claims in the application:

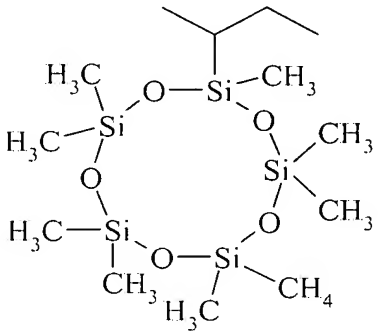
Listing of Claims:

Claim 1 (Currently Amended): A silicon-containing polymer comprising recurring units of at least one of the following general formulae (1), (2)-3 and (2)-4 ~~(2)~~:

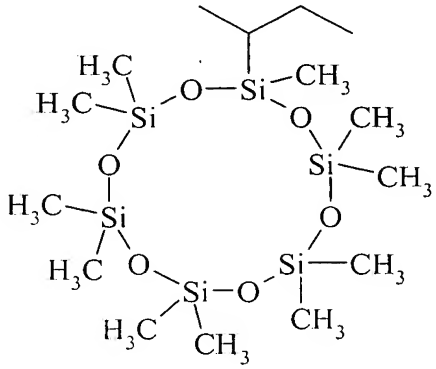


(1)

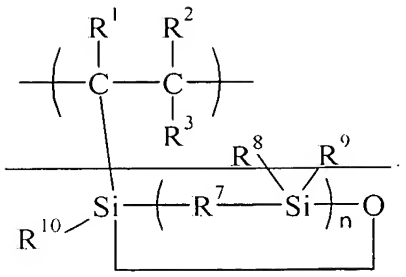
wherein R^1, R^2 and R^3 each are hydrogen or a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, R^4 is a silicon-containing group attached to the silicon atom through a silalkylene linkage, R^5 and R^6 each are independently an alkyl or haloalkyl group having 1 to 20 carbon atoms, an aryl group having 6 to 20 carbon atoms or a silicon-containing group attached to the silicon atom through a siloxane or silalkylene linkage,



(2)-3



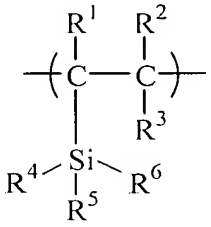
(2)-4



(2)

~~wherein R^1 to R^3 are as defined above, R^7 is an oxygen atom, a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms or an arylene group, R^8 to R^{10} each are independently a straight, branched or cyclic alkyl or fluorinated alkyl group having 1 to 10 carbon atoms or an aryl group, and n is an integer of 2 to 10.~~

Claim 2 (Currently Amended): ~~The silicon-containing polymer of claim 1 further comprising recurring units of the general formula (3):~~ A silicon-containing polymer comprising recurring units of at least one of the following general formulae (1), (2) and (3):



(1)

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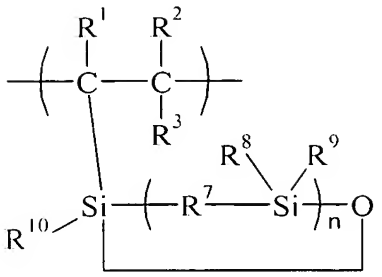
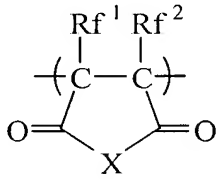
wherein R^1, R^2 and R^3 each are hydrogen or a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, R^4 is a silicon-containing group attached to the silicon atom through a silalkylene linkage, R^5 and R^6 each are independently an alkyl or haloalkyl group having 1 to 20 carbon atoms, an aryl group having 6 to 20 carbon atoms or a silicon-containing group attached to the silicon atom through a siloxane or silalkylene linkage,



(2)

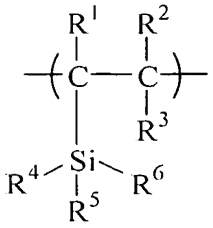
wherein R^1 to R^3 are as defined above, R^7 is an oxygen atom, a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms or an arylene group, R^8 to R^{10} each are independently a straight, branched or cyclic alkyl or fluorinated alkyl group having 1 to 10 carbon atoms or an aryl group, and n is an integer of 2 to 10,



(3)

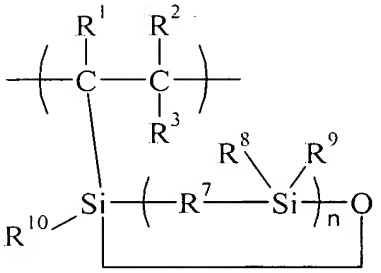
wherein X is an oxygen atom, a sulfur atom or -NR-, R is hydrogen, hydroxyl, a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, or an aryl group, and may contain an acid labile group, Rf^1 and Rf^2 each are independently hydrogen, fluorine or trifluoromethyl.

Claim 3 (Currently Amended): ~~The silicon-containing polymer of claim 1 further comprising recurring units of the general formula (4):~~ A silicon-containing polymer comprising recurring units of at least one of the following general formulae (1), (2) and (4):



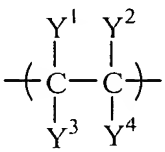
(1)

wherein R^1, R^2 and R^3 each are hydrogen or a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, R^4 is a silicon-containing group attached to the silicon atom through a silalkylene linkage, R^5 and R^6 each are independently an alkyl or haloalkyl group having 1 to 20 carbon atoms, an aryl group having 6 to 20 carbon atoms or a silicon-containing group attached to the silicon atom through a siloxane or silalkylene linkage,



(2)

wherein R^1 to R^3 are as defined above, R^7 is an oxygen atom, a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms or an arylene group, R^8 to R^{10} each are independently a straight, branched or cyclic alkyl or fluorinated alkyl group having 1 to 10 carbon atoms or an aryl group, and n is an integer of 2 to 10,

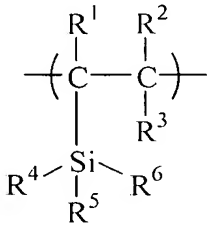


(4)

wherein Y^1, Y^2, Y^3 and Y^4 are independently selected from the class consisting of hydrogen,

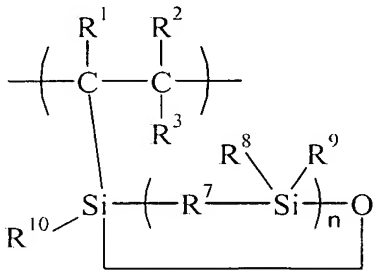
fluorine, chlorine, bromine, cyano, alkoxycarbonyl, fluorinated alkyl and fluorinated alkoxycarbonyl groups.

Claim 4 (Currently Amended): ~~The silicon-containing polymer of claim 1 further comprising recurring units of the general formula (5):~~ A silicon-containing polymer comprising recurring units of at least one of the following general formulae (1), (2) and (5):



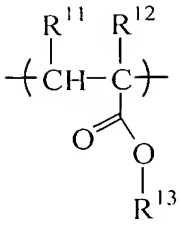
(1)

wherein R^1, R^2 and R^3 each are hydrogen or a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, R^4 is a silicon-containing group attached to the silicon atom through a silalkylene linkage, R^5 and R^6 each are independently an alkyl or haloalkyl group having 1 to 20 carbon atoms, an aryl group having 6 to 20 carbon atoms or a silicon-containing group attached to the silicon atom through a siloxane or silalkylene linkage,



(2)

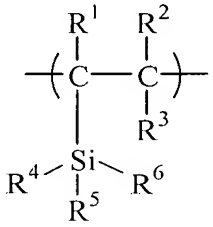
wherein R^1 to R^3 are as defined above, R^7 is an oxygen atom, a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms or an arylene group, R^8 to R^{10} each are independently a straight, branched or cyclic alkyl or fluorinated alkyl group having 1 to 10 carbon atoms or an aryl group, and n is an integer of 2 to 10,



(5)

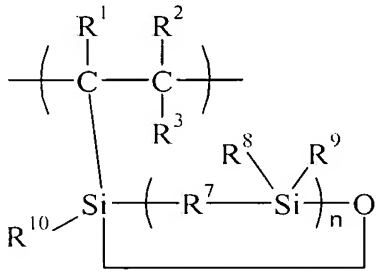
wherein R^{11} and R^{12} each are hydrogen or a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, and R^{13} is an acid labile group or adhesive group.

Claim 5 (Currently Amended): A resist composition comprising ~~the polymer of claim 1~~ a silicon-containing polymer comprising recurring units of at least one of the following general formulae (1) and (2):



(1)

wherein R^1, R^2 and R^3 each are hydrogen or a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, R^4 is a silicon-containing group attached to the silicon atom through a silalkylene linkage, R^5 and R^6 each are independently an alkyl or haloalkyl group having 1 to 20 carbon atoms, an aryl group having 6 to 20 carbon atoms or a silicon-containing group attached to the silicon atom through a siloxane or silalkylene linkage,

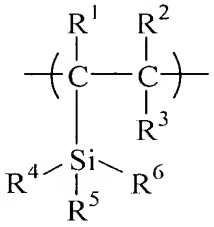


(2)

wherein R^1 to R^3 are as defined above, R^7 is an oxygen atom, a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms or an arylene group, R^8 to R^{10} each are independently a straight, branched or cyclic alkyl or fluorinated alkyl group having 1 to 10 carbon atoms or an aryl group, and n is an integer of 2 to 10.

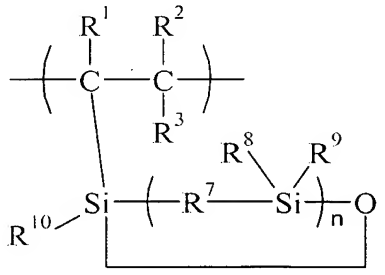
Claim 6 (Currently Amended): A chemically amplified, positive resist composition comprising

(A) ~~the polymer of claim 1~~ a silicon-containing polymer comprising recurring units of at least one of the following general formulae (1) and (2):



(1)

wherein R^1, R^2 and R^3 each are hydrogen or a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, R^4 is a silicon-containing group attached to the silicon atom through a silalkylene linkage, R^5 and R^6 each are independently an alkyl or haloalkyl group having 1 to 20 carbon atoms, an aryl group having 6 to 20 carbon atoms or a silicon-containing group attached to the silicon atom through a siloxane or silalkylene linkage,



(2)

wherein R^1 to R^3 are as defined above, R^7 is an oxygen atom, a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms or an arylene group, R^8 to R^{10} each are independently

a straight, branched or cyclic alkyl or fluorinated alkyl group having 1 to 10 carbon atoms or an aryl group, and n is an integer of 2 to 10,

(B) a photoacid generator, and

(C) an organic solvent.

Claim 7 (Original): The resist composition of claim 6 further comprising (D) a dissolution inhibitor.

Claim 8 (Original): The resist composition of claim 6 further comprising (E) a basic compound.

Claim 9 (Previously Presented): A process for forming a resist pattern comprising the steps of:

applying the resist composition of claim 5 onto a substrate to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask, and

optionally heat treating the exposed resist layer and developing it with a developer.

Claim 10 (Previously Presented): A process for forming a resist pattern comprising the steps of:

applying the resist composition of claim 5 onto a processable substrate formed on a support substrate through an organic film to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask,

optionally heat treating the exposed resist layer and developing it with a developer, and

treating the organic film and the processable substrate by an etching process including oxygen plasma etching at the portions where the exposed resist layer portions are removed by developing.

Claim 11 (Original): The process of claim 10 wherein the organic film is a novolac resin or polyhydroxystyrene layer.

Claim 12 (Previously Presented): A process for forming a resist pattern comprising the steps of:

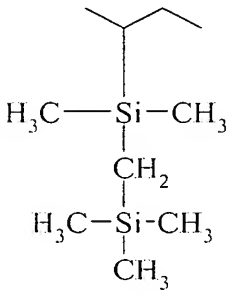
applying the resist composition of claim 5 onto a processable substrate formed on a support substrate to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask,

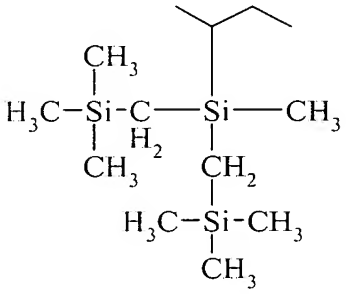
optionally heat treating the exposed resist layer and developing it with a developer, and

treating the processable substrate by an etching with a halogen gas containing chlorine or bromine at the portions where the exposed resist layer portions are removed by developing.

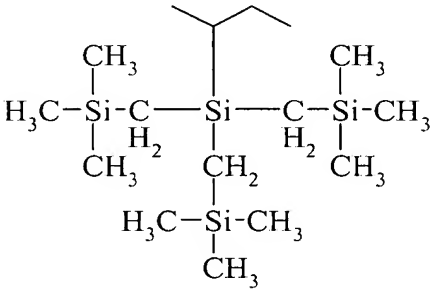
Claim 13 (Previously Presented): The silicon-containing polymer of claim 1, wherein the recurring unit of formula (1) is at least one of formulae (1)-6 to (1)-8



(1)-6



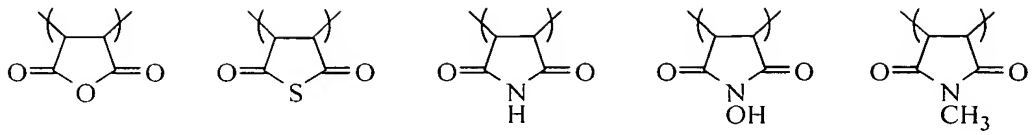
(1)-7



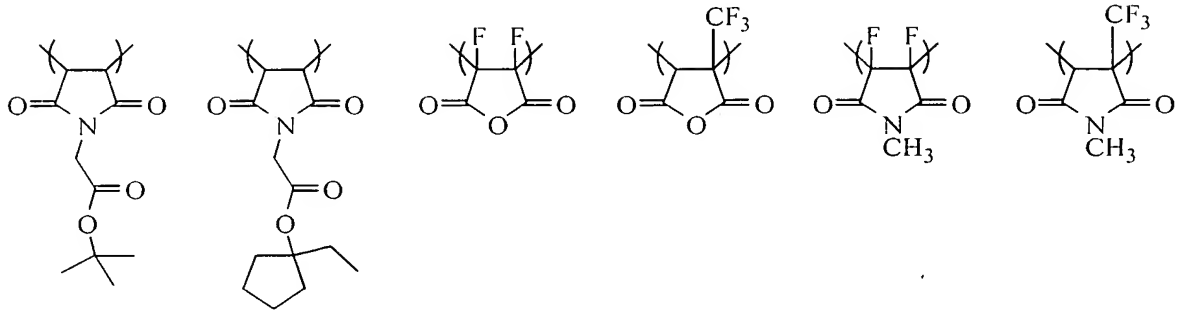
(1)-8

Claim 14 (Cancelled)

Claim 15 (Previously Presented): The silicon-containing polymer of claim 2, wherein the recurring unit of formula (3) is at least one of formulae (3)-1 to (3)-11

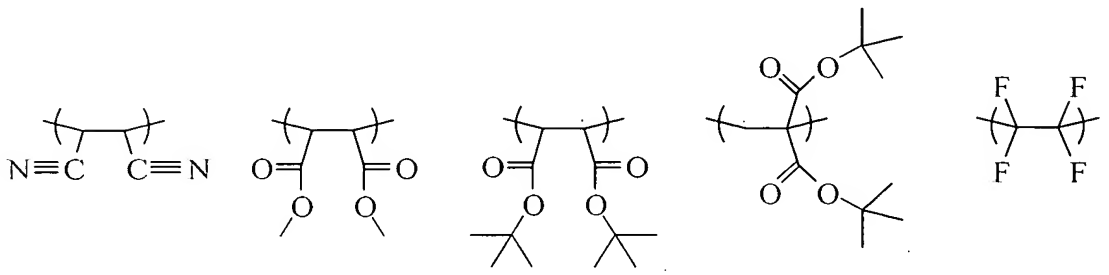


(3)-1 (3)-2 (3)-3 (3)-4 (3)-5

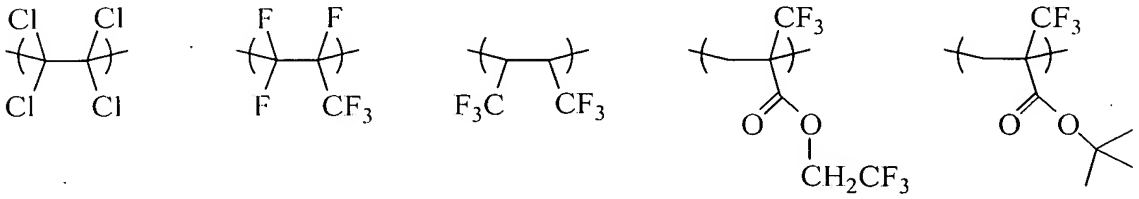


(3)-6 (3)-7 (3)-8 (3)-9 (3)-10 (3)-11

Claim 16 (Previously Presented): The silicon-containing polymer of claim 3, wherein the recurring unit of formula (4) is at least one of formulae (4)-1 to (4)-10

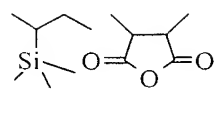


(4)-1 (4)-2 (4)-3 (4)-4 (4)-5

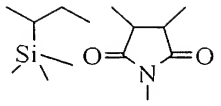


(4)-6 (4)-7 (4)-8 (4)-9 (4)-10

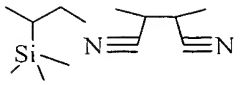
Claim 17. (Previously Presented): A silicon containing polymer selected from the group consisting of polymers A, B, C, E, F, H and I, each polymer consisting of monomers drawn



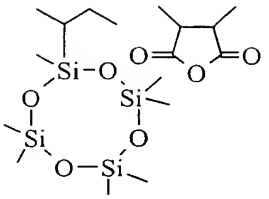
Polymer-A



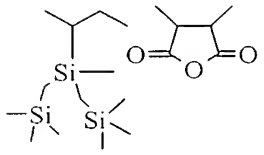
Polymer-B



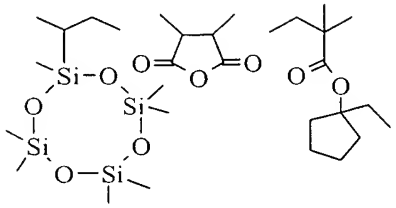
Polymer-C



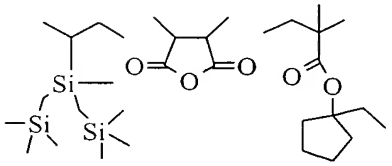
Polymer-E



Polymer-F



Polymer-H



Polymer-I

Claim 18. (Previously Presented): A chemically amplified, positive resist composition comprising

(A) the polymer of claim 2,

(B) a photoacid generator, and

(C) an organic solvent.

Claim 19. (Previously Presented): A chemically amplified, positive resist composition comprising

(A) the polymer of claim 3,

(B) a photoacid generator, and

(C) an organic solvent.

Claim 20. (Previously Presented): A chemically amplified, positive resist composition comprising

(A) the polymer of claim 4,

(B) a photoacid generator, and

(C) an organic solvent.

Claim 21. (Previously Presented): A chemically amplified, positive resist composition comprising

(A) the polymer of claim 17,

(B) a photoacid generator, and

(C) an organic solvent.

Claim 22 (Previously Presented): A process for forming a resist pattern comprising the steps of:

applying the resist composition of claim 6 onto a substrate to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask, and

optionally heat treating the exposed resist layer and developing it with a developer.

Claim 23 (Previously Presented): A process for forming a resist pattern comprising the steps of:

applying the resist composition of claim 6 onto a processable substrate formed on a support substrate through an organic film to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask,

optionally heat treating the exposed resist layer and developing it with a developer, and

treating the organic film and the processable substrate by an etching process including oxygen plasma etching at the portions where the exposed resist layer portions are removed by developing.

Claim 24 (Previously Presented): A process for forming a resist pattern comprising the steps of:

applying the resist composition of claim 6 onto a processable substrate formed on a support substrate to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask,

optionally heat treating the exposed resist layer and developing it with a developer, and

treating the processable substrate by an etching with a halogen gas containing chlorine or bromine at the portions where the exposed resist layer portions are removed by developing.

Claim 25 (Previously Presented): A process for forming a resist pattern comprising the steps of:

applying the resist composition of claim 7 onto a substrate to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask, and

optionally heat treating the exposed resist layer and developing it with a developer.

Claim 26 (Previously Presented): A process for forming a resist pattern comprising the steps of:

applying the resist composition of claim 7 onto a processable substrate formed on a support substrate through an organic film to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask,

optionally heat treating the exposed resist layer and developing it with a developer, and

treating the organic film and the processable substrate by an etching process including oxygen plasma etching at the portions where the exposed resist layer portions are removed by developing.

Claim 27 (Previously Presented): A process for forming a resist pattern comprising the steps of:

applying the resist composition of claim 7 onto a processable substrate formed on a support substrate to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask,

optionally heat treating the exposed resist layer and developing it with a developer, and

treating the processable substrate by an etching with a halogen gas containing chlorine or bromine at the portions where the exposed resist layer portions are removed by developing.

Claim 28 (Previously Presented): A process for forming a resist pattern comprising the steps of:

applying the resist composition of claim 8 onto a substrate to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask, and

optionally heat treating the exposed resist layer and developing it with a developer.

Claim 29 (Previously Presented): A process for forming a resist pattern comprising the steps of:

applying the resist composition of claim 8 onto a processable substrate formed on a support substrate through an organic film to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask,

optionally heat treating the exposed resist layer and developing it with a developer, and

treating the organic film and the processable substrate by an etching process including oxygen plasma etching at the portions where the exposed resist layer portions are removed by developing.

Claim 30 (Previously Presented): A process for forming a resist pattern comprising the steps of:

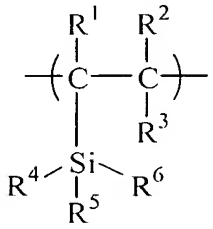
applying the resist composition of claim 8 onto a processable substrate formed on a support substrate to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask,

optionally heat treating the exposed resist layer and developing it with a developer, and

treating the processable substrate by an etching with a halogen gas containing chlorine or bromine at the portions where the exposed resist layer portions are removed by developing.

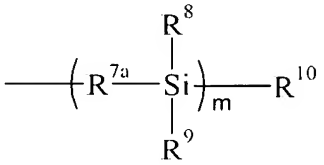
Claim 31. (Previously Presented): A silicon-containing polymer comprising recurring units of formula (1) ~~at least one of the following general formulae (1) and (2)~~:



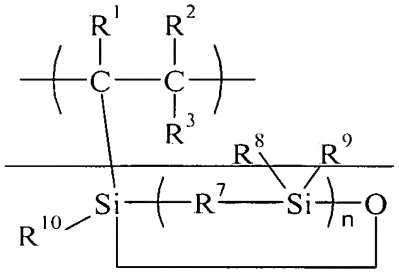
(1)

wherein R^1, R^2 and R^3 each are hydrogen or a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, R^5 and R^6 each are independently an alkyl or haloalkyl group having 1 to 20 carbon atoms, an aryl group having 6 to 20 carbon atoms or a silicon-containing group attached to the silicon atom through a siloxane or silalkylene linkage,

R^4 is a silicon-containing group attached to the silicon atom through a silalkylene linkage of the following formula



wherein R^{7a} is a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms or an arylene group, R^8 to R^{10} each are independently a straight, branched or cyclic alkyl or fluorinated alkyl group having 1 to 10 carbon atoms or an aryl group, m is an integer of 1 to 10;



(2)

~~wherein R^1 to R^3 are as defined above, R^7 is an oxygen atom, a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms or an arylene group, R^8 to R^{10} are independently as defined above, and n is an integer of 2 to 10~~.

Claim 32. (Previously Presented): A chemically amplified, positive resist composition comprising

(A) the polymer of claim 31,

(B) a photoacid generator, and

(C) an organic solvent.

Claim 33 (Previously Presented): A process for forming a resist pattern comprising the steps of:

applying the resist composition of claim 32 onto a substrate to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask, and

optionally heat treating the exposed resist layer and developing it with a developer.

Claim 34 (Previously Presented): A process for forming a resist pattern comprising the steps of:

applying the resist composition of claim 32 onto a processable substrate formed on a support substrate through an organic film to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask,

optionally heat treating the exposed resist layer and developing it with a developer, and

treating the organic film and the processable substrate by an etching process including oxygen plasma etching at the portions where the exposed resist layer portions are removed by developing.

Claim 35 (Previously Presented): A process for forming a resist pattern comprising the steps of:

applying the resist composition of claim 32 onto a processable substrate formed on a support substrate to form a resist layer,

heat treating the resist layer and then exposing it to high-energy radiation having a wavelength of up to 300 nm or electron beam through a photo mask,

optionally heat treating the exposed resist layer and developing it with a developer, and

treating the processable substrate by an etching with a halogen gas containing chlorine or bromine at the portions where the exposed resist layer portions are removed by developing.

Claim 36 (Cancelled)